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Fitzsimmons

STEEL WORKERS GUIDE

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STEEL WORKERS GUIDE,
WITH TABLES
SHOWING THE WEIGHT OF DIFFERENT LENGTHS
AND SIZES OF
ROUND, SQUARE, AND FLAT BAR
STEEL, ETC.

BY A PRACTICAL MECHANIC.

HENRY VAN HOUTEN.

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PREFACE

As Steel has become an article of very great and general demand, for almost all mechanical purposes, it has been thought by many persons, well acquainted with the uses to which it is applied, that a Set of Tables, calculated to ascertain the weight of any given length, of the different dimensions (as regards thickness) of Round, Square, and Flat Bar Steel, would be of great utility to those who are in the habit of constantly using them.

With this view, the Author of the following Tables, (himself a mechanic) presents them to his fellow laborers, and the Public in general, in the confident hope, that for every practicle purpose, they wlll be found sufficiently accurate to be depended upon. But it is proper to observe, that, as the calculations have been made with constant reference to Sizes and Lengths, which were of *exact* dimensions, it cannot be expected that in every trial which may be made to ascertain their correctness, that the result will always correspond exactly with the Tables, as much will depend on the quality of the steel tried, as well as the accuracy of its dimensions; it being a well known fact, that, in proportion as the steel is pure, it becomes heavier, and of greater specific gravity.

It may also be useful to state, that the great difference which exists in the strength of steel in bars,

(or in the weight which one of them will bear before it tears assunder,) sufficiently proves the difference in its quality; and the Author of these Tables is enabled to state, with confidence, as the result of numberless experiments, which he has had the opportunity of trying in a Steel Manufactory, that a Square Bar of Common Steel will not bear more than from 630 to 665 pounds weight, to every one-eighth of an inch of its dimensions, while a bar of the Best Cast Steel of the same dimensions, will bear from 780 to 800 pounds.

The Author therefore trusts, that these Tables will be found essentially useful to persons who are not acquainted with the method of calculating the weight of the different sizes of Bar Steel; by enabling them to compute with tolerable certainty, the weight of Steel it will require to complete any work they may have, either in operation or contemplation; as also to the directing workmen in Forges, and works of a similar nature, by enabling them to calculate what weight of a Bloom of Steel will be necessary to form a Bar of any given dimensions.

Being himself an operative mechanic, the Author hopes, that they will be found of great advantage to his fellow workmen, and the community at large, and hopes that the public will give him credit for all that he aims at, a wish to be useful to others as well as himself.

Newark, N. J., 1885.

SIZES OF
HORSE AND SHOE RASPS,
HAND. FLAT, MILL SAW, TOPPING, KNIFE,
HALF-ROUND, CABINET, FRAME SAW,
SQUARE & ROUND, TAPER SAW,
COMMON THREE SQUARE,
MIDDLE BACK, HIGH
BACK, AND CROSS
FILES.

Length In.	HORSE RASPS. Size. in Inches.	Length In.	HAND FILES. Size in Inches.
16	f 1.11-16 x 3-8 f	6	11-16 x 8 gauge
15	b 1.5-8 x 3-8 b	5	5-8 x 11 ,,
14	1.1-2 x 11-32	4½	9-16 x 12 ,,
13	f 1.3-8 x 5-16	4	1-2 x 13 ,,
12	f 1.1-4 x 5-16 b	3½	f 13-32 x 14 ,,
11	1.4-16 x 9-32	3	b 3-8 x 15 ,,
<hr/>			
SHOE RASPS.			
10	1.1-16 x 4 gauge	20	1.7-8 x 1-2 b
9	1 x 5 ,,	19	1.25-32 x 15-32 b
8	7-8 x 6 ,,	18	1.23-32 x 7-16 e
7	13-16 x 7 ,,	17	1.5-8 x 13-32
6	3-4 x 8 ,,	16	1.9-16 x 25-64
<hr/>			
HAND FILES.			
20	2 x 1-2	15	1.7-16 x 3-8
19	1.7-8 x 15-32	14	1.3-8 x 11-32 f
18	1.25-32 x 7-16	13	1.5-16 x 21-64
17	1.23-32 x 13-32 f	12	1.3-16 x 5-16
16	1.5-8 x 13-32	11	1.3-32 x 9-32
15	1.17-32 x 3-8 f	10	1 x 1-4
14	1.7-16 x 23-64	9	7-8 x 7-32
13	1.3-8 x 11-32 b	8	13-16 x 13-64
12	1.1-4 x 5-16	7	b 3-4 x 7 gauge
11	1.3-16 x 9-32	6	5-8 x 9 ,,
10	1.1-16 x 1-4 t	5	9-16 x 13 ,, t
9	1 x 15-16	4½	1-2 x 13 ,, e
8	7-8 x 7-32	4	f 7-16 x 14 ,,
7	13-16 x 3-16	3½	3-8 x 16 ,,
		3	5-16 x 16 ,, e

Length In.	MILL SAW FILES. Size. in Inches.	Length In.	HALF ROUND Size in Inches.
16	1.9-16 x 9-32	20	1.15-16 x 5-8
15	1.7-16 x 17-64	19	1.13-16 x 19-32
14	1.3-8 x 1-4	18	1.3-4 x 9-16
13	1.9-32 x 15-64	17	1.5-8 x 1-2
12	1.3-16 x 7-32	16	1.9-16 x 15-32
11	1.3-32 x 6 gauge	15	1.1-2 x 7-16
10	1 x 7 ,,	14	1.13-32 x 13-32
9	7-8 x 8 ,,	13	1.5-16 x 3-8
8	13-16 x 9 ,,	12	1.1-4 x 11-32
7	b 3-4 x 10 ,,	11	1.1-8 x 5-16 full
6	5-8 x 11 ,,	10	1.1-32 x 9-32 ,,
		9	15-16 x 17-64
	TOPPING FILES.	8	27-32 x 15-64
10	1.1-16 x 1-4	7	23-32 x 7-32
9	b 1 x 7-32 t	6	5-8 x 3-16
8	7-8 x 13-64	5½	19-32 x 11-64
7	13-16 x 3-16	5	9-16 x 5-32
6	3-4 x 8 gauge	4½	1-2 x 9-64
	KNIFE FILES.	4	7-16 x 1-8
12	1.1-4 x 5-16	3½	f 5-16 x 1-8 r e
11	1.5-32 x 9-32	3	f 9-32 x 11 , , g
10	1.1-16 x 3 gauge		CABINET FILES.
9	31-32 x 4 ,,	16	1.3-4 x 9-32 full
8	7-8 x 5 ,,	15	1.5-8 x 17-64
7	b 13-16 x 6 ,,	14	1.9-16 x 1-4
6	23-32 x 7 ,,	13	1.15-32 x 15-64
5	5-8 x 5-32	12	1.3-8 x 7-32

8 FRAME SAW, HIGH BACK, AND CROSS FILES, ETC.

Length In.	CABINET FILES. Size. in Inches.	Length In.	HIGH BACK FILES. Size in Inches.
11	1.1-4 x 3-16 full	12	1.1-8 x 7-16
10	1.1-8 x 3-16 bare	11	1 x 3-8 full
9	1 x 5-32	10	7-8 x 3-8 bare
8	15-64 x 9-64	9	13-16 x 11-32
7	b 3-4 x 9-16 r e	8	3-4 x 5-16
6	5-8 x 1-8		MIDDLE BACKS
	FRAME SAWS.	16	full 1.1-2 x 1-2
10	11-16 x 3-8 full	15	1.13-32 x 15-32
9	5-8 x 3-8 bare	14	1.5-16 x 7-16
8½	19-32 x 21-64	13	1.1-4 x 13-32
8	9-16 x 5-16	12	1.5-32 x 13-32 b
7½	17-32 x 5-16 easy	11½	1.5-32 x 3-8
7	1-2 x 19-64	10	1 x 5-16
6½	15-32 x 9-32	9½	31-32 x 5-16 easy
6	7-16 x 9-32 easy		CROSS FILES.
5½	13-32 x 1-4	18	1.3-4 x 9-16
5	3-8 x 15-64	16	1.9-16 x 15-32
4½	11-32 x 13-64	14	1.11-32 x 13-32
4	5-16 x 3-16	12	1.1-4 x 13-32
	HIGH BACKS.		FEATHER EDGE.
20	1.3-4 x 11-16	14	1.9-16 x 3-8
19	1.21-32 x 21-32	12	1.3-8 x 5-16
18	1.9-16 x 5-8	10	1.1-4 x 7-32 full
17	1.15-32 x 19-32	9	f 1.1-16 x 7-32
16	1.3-8 x 9-16	8	1 x 3-16
15	1.11-32 x 17-32	7	7-8 x 3-16 full
14	1.1-4 x 1-2	6	25-32 x 5-32
13	1.7-32 x 15-32	5	11-16 x 5-32 full

9 SQUARE, ROUND, TAPER SAW, & THREE SQUARE FILES.

Square & Rounds.		Taper Saw Files.		Three Square	
Length In.	Inches in Dia.	Length In.	Size in Inches.	Length In.	Size in Inches.
20	1	20	1.1-2	20	1.7-16
19	15-16	19	1.7-16	19	1.3-8
18	7-8	18	1.3-8	18	1.5-16
17	13-16	17	1.5-16	17	1.1-4
16	3-4	16	1.1-4	16	1.3-16
15	11-16	15	1.3-16	15	1.1-8
14	5-8	14	1.1-8	14	1.1-16
13	9-16	13	1.1-16	13	1
12	1-2	12	1	12	15-16
11	7-16	11	15-16	11	7-8
10	3-8	10	13-16	10	3-4
9	11-32	9	3-4	9	11-16
8	5-16	8	11-16	8	5-8
7	9-32	7	5-8	7	9-16
6	1-4	6½	9-16	6½	17-32
5	7-32	6	17-32	6	1-2
4½	13-64	5½	1-2	5½	15-32
4	3-16	5	15-32	5	7-16
3½	11-64	4½	7-16	4½	3-8
3	5-32	4	3-8	4	5-16
2½	9-64	3½	5-16	3½	9-32
2	1-8	3	9-32	3	1-4

SIZES OF WIRE GAUGE.

No.	Size In.	No.	Size In.	No.	Size In.
1	19-64	8	5-32 f	15	1-16 f
2	9-32	9	9-64 "	16	1-16
3	1-4 f	10	1-8 "	17	1-16 e
4	15-64	11	7-64 "	18	3-64
5	7-32	12	3-32 "	19	3-64 e
6	13-64	13	3-32	20	1-32 j f
7	11-64 f	14	5-64	21	1-32

WEIGHT OF SQUARE, ROUND, THREE
SQUARE, AND HALF ROUND STEEL BARS,
FROM TEN TO FIFTEEN FEET LONG,
AND $\frac{1}{8}$ TO 5 INCHES SQ. $\frac{1}{8}$ TO 3 INCHES IN DIAMETER.

THREE SQUARE FROM $\frac{1}{4}$ TO $1\frac{1}{2}$ INCHES.

HALF ROUND SIZES FROM 4 TO 20.

CABINETS, SIZES FROM 8 TO 16.

HIGH BACKS, SIZES 8 TO 20.

FRAMES, FROM 4 TO 10.

11 WEIGHT OF STEEL FROM 1-8 TO 31-64ths. IN. SQ.

No. Feet.	Size sq. 1 8	Size sq. 9-64	Size sq. 5-32	Size sq. 11-64	Size sq. 3-16	Size sq. 13-64
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	.48	.73	.75	1.	1.24	1.48
11	.5	.74	.95	1.05	1.25	1.5
12	.72	.75	1.	1.25	1.48	1.74
13	.73	.95	1.05	1.26	1.5	1.75
14	.74	.99	1.24	1.45	1.73	2.
15	.75	1.	1.25	1.5	1.75	2.05
	7-32	15-64	14	17-64	9-32	19-64
10	1.74	1.95	2.23	2.48	2.75	3.
11	1.75	2.	2.25	2.74	3.	3.25
12	2.	2.25	2.26	3.	3.25	3.74
13	2.23	2.5	2.75	3.24	3.5	4.
14	2.24	2.73	3.	3.25	3.75	4.25
15	2.5	2.75	3.25	3.5	4.	4.5
	5-16	21-64	11-32	23-64	3-8	25-64
10	3.25	3.75	4.	4.24	4.75	5.25
11	3.74	4.	4.5	5.	5.25	5.75
12	4.	4.5	4.75	5.25	5.75	6.25
13	4.25	4.75	5.25	5.75	6.25	6.75
14	4.75	5.25	5.74	6.25	6.75	7.25
15	5.	5.5	6.	6.74	7.5	7.75
	13-32	27-64	7-16	29-64	15-32	31-64
10	5.74	6.	6.5	7.	7.5	8.
11	6.25	6.75	7.25	7.75	8.25	9.
12	6.75	7.25	8.	8.5	9.	9.75
13	7.5	8.	8.5	9.25	9.75	10.5
14	8.	8.5	9.24	10.	10.5	11.25
15	8.5	9.24	9.75	10.5	11.25	12.

12 WEIGHT OF STEEL FROM 1-2 TO 5 IN. SQUARE.

No. Feet.	Size sq.	Size sq.	Sizesq.	Size sq.	Weight of 1 foot	
	1-2 lbs.	17-32 lbs.	9-16 lbs.	19-32 lbs.	Size.	lbs.
10	8.74	9.75	11.	12.25	1 $\frac{1}{8}$	4.5
11	9.5	10.75	12.	13.5	1 $\frac{1}{4}$	5.25
12	10.25	11.75	13.	14.75	1 $\frac{3}{8}$	6.25
13	11.25	12.75	14.25	16.	1 $\frac{1}{2}$	7.25
14	12.	13.75	15.25	17.	1 $\frac{5}{8}$	8.5
15	13.	14.74	16.5	18.5	1 $\frac{3}{4}$	10.25
	5-8	21-32	11-16	23-32	1 $\frac{7}{8}$	11.5
10	13.5	15.	16.5	18.	2	13.75
11	15.	16.5	18.	19.75	2 $\frac{1}{8}$	15.25
12	16.25	18.	19.75	21.5	2 $\frac{1}{4}$	17.
13	17.75	19.5	21.25	23.25	2 $\frac{3}{8}$	18.25
14	19.	21.	23.	25.	2 $\frac{1}{2}$	20.25
15	20.25	22.25	24.5	26.75	2 $\frac{3}{4}$	25.25
	3-4	25-32	13-16	7-8	2 $\frac{7}{8}$	27.5
10	19.5	21.	22.75	26.5	3	30.5
11	21.48	23.25	25.	29.	3 $\frac{1}{8}$	32.75
12	23.25	25.5	27.48	31.75	3 $\frac{1}{4}$	35.25
13	25.25	27.5	29.75	34.5	3 $\frac{3}{8}$	48.
14	27.25	29.5	32.	37.	3 $\frac{1}{2}$	40.25
15	29.25	31.75	34.25	39.75	3 $\frac{5}{8}$	43.25
	15-16	1			3 $\frac{3}{4}$	47.
10	30.25	34.5			3 $\frac{7}{8}$	50.25
11	33.5	38.			4	53.5
12	36.5	41.5			4 $\frac{1}{4}$	60.25
13	39.5	45.			4 $\frac{1}{2}$	67.25
14	42.5	48.48			4 $\frac{3}{4}$	75.25
15	45.5	51.75			5	84.

WEIGHT OF STEEL FROM 1-8 TO 31-64ths. IN. DIA. 13

No. Feet.	In. Dia. 1 8	In. Dia. 9-64	In. Dia. 5-32	In. Dia. 11-64	In. Dia. 3-16	In. Dia. 13-64
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	.46	.5	.74	.75	1.	1.24
11	.48	.51	.75	.95	1.05	1.25
12	.5	.73	.76	1.	1.24	1.26
13	.51	.74	.95	1.05	1.25	1.5
14	.52	.75	.98	1.24	1.26	1.51
15	.74	.76	1.	1.25	1.5	1.74
	7-32	15-64	1-4	17-64	9-32	19-64
10	1.26	1.5	1.75	2.	2.24	2.24
11	1.45	1.74	2.	2.04	2.25	2.75
12	1.51	1.76	2.05	2.26	2.26	3.
13	1.75	2.	2.25	2.5	2.76	3.24
14	1.76	2.05	2.48	2.74	3.	3.48
15	2.	2.25	2.5	2.98	3.25	3.5
	5-16	21-64	11-32	23-64	3-8	25-64
10	1.74	3.	3.25	3.5	3.75	4.25
11	3.	3.25	3.5	4.	4.25	4.5
12	3.25	3.5	4.	4.25	4.5	5.
13	3.5	3.75	4.25	4.5	5.	5.5
14	3.75	4.	4.5	5.	5.49	5.76
15	4.	4.5	4.75	5.25	5.75	6.25
	13-32	27-64	7-16	29-64	15-32	31-64
10	4.5	4.98	5.25	5.74	6.	6.49
11	5.	5.25	5.75	6.24	6.5	7.
12	5.48	5.75	6.25	6.75	7.25	7.75
13	5.75	6.25	6.75	7.25	7.74	8.49
14	6.25	6.75	7.25	8.	8.5	9.
15	6.75	7.25	7.75	8.49	9.	9.5

14 WEIGHT OF STEEL FROM 1-2 TO 1.7-16 IN. DIA.

No. Feet.	In. Dia. 1-2	In. Dia. 17-32	In. Dia. 9-16	In. Dia. 19-32	In. Dia. 5-8	In. Dia. 21-32
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	6.75	7.75	8.75	9.75	10.75	11.75
11	7.5	8.5	9.5	10.5	11.75	13..
12	8.25	9.25	10.25	11.5	13.	14.25
13	9.	10.	11.25	12.5	14.	15.25
14	9.5	10.75	12.	13.5	15.	16.5
15	10.25	11.5	13.	14.25	16.	17.75
	11-16	23-32	3-4	25-32	13-16	27-21
10	13.	14.25	15.5	16.75	18.	19.5
11	14.25	15.5	17.	18.5	20.	21.5
12	15.5	17.	18.5	20.	21.75	23.5
13	17.	18.5	20.	21.75	23.5	25.25
14	18.25	20.	21.5	23.25	25.25	27.25
15	19.5	21.25	23.	25.	27.	29.25
	7-8	29-32	15-16	31-32	1	1.1-16
10	21.	22.5	24.	25.75	27.25	31.
11	23.	24.75	26.5	28.25	30.	34.
12	25.	27.	29.	31.	32.75	37.
13	27.25	29.25	31.5	33.5	35.5	40.
14	29.25	31.5	33.5	36.	38.	43.
15	31.25	33.75	36.	38.5	41.	46.25
	1.1-8	1.3-16	1.1-4	1.5-16	1.3-8	1.7-16
10	34.25	38.5	42.5	47.	51.5	56.5
11	37.75	42.	47.	51.5	56.5	62.1
12	41.25	46.	51.25	56.	61.75	67.5
13	44.75	50.	55.5	61.	67.	73.
14	48.25	53.75	59.75	65.5	72.	79.
15	51.5	57.5	64.	70.25	77.25	84.5

WEIGHT OF STEEL FROM 1.1-2 TO 3. INS. IN DIA. 15

No. Feet.	In. Dia. 1.1-2	In. Dia. 1.9-16	In. Dia. 1.5-8	In. Dia. 1.11-16	In. Dia. 1.3-4	In. Dia. 1.13-16
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	61.5	67.	71.5	78.	84.	90.
11	67.5	73.75	79.5	85.5	92.	99.
12	73.5	80.	86.5	93.	100.	109.
13	79.75	87.	94.	101.	109.	114.
14	85.5	93.5	101.	108.	117.	126.
15	91.75	100.	108.	116.	126.	134.
	1.7-8	1.15-16	2	2.1-8	2.1-4	2.3-8
10	96.	113.	109.	123.	138.	154.
11	106.	113.25	120.	136.	152.	170.
12	115.	123.75	131.	148.	166.	185.
13	125.	133.75	142.	160.	180.	200.
14	134.5	144.	153.	172.	194.	215.
15	144.	154.	164.	185.	207.	230.
	2.1 2	2.5-8	2.3-4	2.7-8	3	
10	171.	188.	206.	226.	246.	
11	188.	207.	227.	248.	270.	
12	205.	225.	248.	270.	294.	
13	223.	244.	269.	293.	319.	
14	240.	263.	290.	317.	343.	
15	257.	282.	310.	337.	368.	

WEIGHT OF THREE SQUARE STEEL, 1-4 TO 21-64ths.

	1-4	17-64	9-32	19-64	5-16	21-64
10	1.	1.04	1.25	1.48	1.5	1.74
11	1.02	1.24	1.26	1.5	1.74	1.75
12	1.24	1.25	1.5	1.74	1.75	2.
13	1.25	1.48	1.52	1.75	2.	2.24
14	1.26	1.5	1.75	2.	2.24	2.25
15	1.5	1.75	1.76	2.25	2.25	2.5

16 WEIGHT OF THREE SQUARE STEEL 11-32 TO 13-16 INS.

No. Feet.	Size In. 11-32	Size In. 23-64	Size In. 3-8	Size In. 25-64	Size In. 13-32	Size In. 27-64
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	1.75	2.	2.25	2.49	2.5	2.75
11	2.	2.25	2.49	2.5	2.75	3.
12	2.25	2.49	2.5	2.75	3.	3.25
13	2.48	2.5	2.75	3.	3.25	3.5
14	2.5	2.75	3.	3.25	3.5	4.
15	2.75	3.	3.25	3.5	3.75	4.25
	7-16	29-64	15-32	31-64	1-2	33-64
10	3.	3.25	3.5	3.75	3.98	4.
11	3.25	3.5	3.75	4.	4.25	4.25
12	3.5	3.75	4.	4.5	4.75	5.
13	4.	4.25	4.5	4.75	5.	5.5
14	4.25	4.5	4.75	5.	5.5	5.75
15	4.5	4.75	5.	5.5	5.75	6.25
	17-32	35-64	9-16	37-64	19-32	5-8
10	4.5	4.75	5.	5.25	5.5	6.
11	4.75	5.25	5.5	5.75	6.	6.75
12	5.25	5.5	6.	6.25	6.5	7.25
13	5.75	6.	6.5	6.75	7.25	8.
14	6.25	6.5	7.	7.25	7.75	8.5
15	6.5	7.	7.25	7.75	8.25	9.
	21-32	11-16	23-32	3-4	25-32	13-16
10	6.75	7.5	8.25	8.75	9.5	10.5
11	7.5	8.25	9.	9.75	10.5	11.5
12	8.	9.	9.75	10.5	11.5	12.5
13	8.75	9.75	10.5	11.5	12.5	13.5
14	9.5	10.25	11.25	12.5	13.5	14.5
15	10.	11.	12.25	13.25	14.25	15.5

WEIGHT OF THREE SQUARE STEEL, $\frac{7}{8}$ TO $1\frac{1}{2}$ INS. 17

No. Feet.	Size In. 7-8	Size In. 15-16	Size In. 1	Size In. 1.1-16	Size In. 1.1-8	Size In. 1.3-16
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	12.	13.75	15.5	17.5	19.75	22.
11	13.25	15.	17.	19.25	21.5	24.
12	14.5	16.5	18.75	21.	23.5	26.5
13	15.5	17.75	20.25	22.75	25.5	28.5
14	16.75	19.25	21.75	24.5	27.5	31.75
15	18.	20.25	23.25	26.25	29.5	33.
	1.1-4	1.5-16	1.3-8	1.7-16	1.1-2	
10	24.5	27.	29.5	32.25	35.	
11	26.75	29.5	32.5	35.5	38.5	
12	29.25	32.25	35.5	38.75	42.	
13	31.75	35.	38.25	42.	45.5	
14	34.25	37.5	41.25	45.25	49.	
15	36.5	40.	44.25	48.5	52.5	

WEIGHT OF HALF-ROUND STEEL, SIZES FROM 4 TO 14.

Size.	10 Feet.	11 Feet.	12 Feet.	13 Feet.	14 Feet.	15 Feet.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
4	1.49	1.5	1.74	1.75	1.98	2.
$4\frac{1}{2}$	1.75	2.	2.25	2.49	2.5	2.75
5	2.25	2.5	2.75	3.	3.25	3.5
$5\frac{1}{2}$	2.75	3.	3.25	3.5	3.75	4.
6	3.	3.25	3.5	4.	4.25	4.5
7	4.25	4.5	5.	5.5	6.	6.25
8	5.25	5.75	6.25	6.75	7.25	7.75
9	6.25	6.75	7.5	8.	8.75	9.5
10	7.75	8.5	9.25	10.	10.75	11.75
11	9.75	10.75	11.75	12.75	13.75	14.75
12	11.	12.	13.25	14.25	15.25	16.5
13	12.5	13.75	15.	16.25	17.5	18.75
14	15.	16.5	18.	19.5	21.	22.5

18 WEIGHT OF HALF-ROUND STEEL, SIZES 15 TO 20.

Size.	10 Feet.	11 Feet.	12 Feet.	13 Feet.	14 Feet.	15 Feet.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
15	16.75	18.5	20.	21.75	23.5	25.
16	18.75	20.5	22.5	24.5	26.25	28.
17	21.	23.	25.25	27.25	29.5	31.5
18	25.	27.5	30.	32.5	35.	37.5
19	27.5	30.25	33.	35.75	38.5	41.25
20	31.	34.	37.25	40.25	43.25	46.5

WEIGHT OF CABINETS, HALF-ROUND, SIZES 8 TO 16.

Size.	10 Feet.	11 Feet.	12 Feet.	13 Feet.	14 Feet.	15 Feet.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
8	3.5	3.75	4.25	4.5	5.	5.25
9	4.	4.5	5.	5.25	5.75	6.
10	5.	5.5	6.	6.5	7.	7.5
11	6.	6.5	7.25	7.75	8.5	9.
12	7.5	8.25	9.	10.	10.75	11.5
13	8.5	9.5	10.25	11.25	12.	13.
14	9.75	10.75	11.75	12.75	13.75	14.75
15	11.	12.	13.	14.25	15.25	16.25
16	12.25	13.5	14.75	16.	17.25	18.5

WEIGHT OF HIGH BACKS, SIZES FROM 8 TO 15.

Size.	10 Feet.	11 Feet.	12 Feet.	13 Feet.	14 Feet.	15 Feet.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
8	6.25	6.75	7.25	8.	8.5	9.25
9	7.25	8.	8.75	9.25	10.25	11.
10	8.25	9.25	10.	10.75	11.75	12.5
11	10.25	11.25	12.25	13.25	14.25	15.25
12	13.	14.25	15.5	17.	18.25	19.5
13	15.	16.5	18.	19.5	21.	22.5
14	16.5	18.25	19.75	21.5	23.	24.75
15	18.75	20.5	22.5	24.5	26.25	28.

Size.	10 Feet.	11 Feet.	12 Feet.	13 Feet.	14 Feet.	15 Feet.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
16	20.25	22.25	24.25	26.5	28.5	30.5
17	22.75	25.	27.25	29.25	31.75	34.
18	25.5	28.	31.75	33.25	35.75	38.5
19	28.5	31.5	34.25	37.	40.	43.
20	31.5	34.5	37.75	41.	44.	47.5

WEIGHT OF FRAME SAWS, SIZES FROM 4 TO 10.

Size.	10 Feet.	11 Feet.	12 Feet.	13 Feet.	14 Feet.	15 Feet.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
4	1.74	1.75	2.	2.24	2.25	2.5
4½	2.	2.24	2.25	2.5	2.75	3.
5	2.5	2.75	3.	3.25	3.5	3.75
5½	3.	3.25	3.5	3.75	4.	4.25
6	3.5	3.75	4.	4.5	4.75	5.25
6½	3.75	4.25	4.5	5.	5.25	5.75
7	4.25	4.75	5.	5.5	6.	6.5
7½	4.75	5.25	5.5	6.	6.5	7.
8	5.	5.5	6.	6.5	7.	7.5
8½	5.5	6.25	6.75	7.25	7.75	8.25
9	6.5	7.25	8.	8.5	9.25	10.
10	7.75	8.5	9.25	10.	10.75	11.5

WEIGHT OF FLAT STEEL BARS
FROM TEN TO FIFTEEN FEET LONG,
AND FROM 1-4 x 1-16 INCHES,
TO 2 x 3-4 INCHES.

20 WEIGHT OF FLAT STEEL, 1-4 x 1-16 TO 3-8 x 11-32

No. Feet.	Size In. 1-4 x 1-16	Size In. 3-32	Size In. 1-8	Size In. 5-32	Size In. 3-16	Size In. 7-32
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	.5	.75	1.	1.25	1.5	1.98
11	.52	.98	1.24	1.5	1.75	2.
12	.73	1.	1.25	1.74	1.98	2.25
13	.74	1.03	1.48	1.75	2.	2.5
14	.75	1.24	1.5	1.98	2.25	2.74
15	.76	1.25	1.52	2.	2.48	2.75
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	5-16 x 1-16	3-32	1-8	5-32	3-16	7-32
10	.74	1.	1.25	1.74	2.	2.48
11	.75	1.04	1.5	1.75	2.25	2.5
12	.76	1.25	1.52	2.	2.49	2.75
13	.78	1.26	1.75	2.24	2.74	3.
14	.98	1.48	1.98	2.25	2.75	3.25
15	1.	1.5	2.	2.5	3.	3.5
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	5-16 x 1-4	9-32	3-8 x 1-16	3-32	1-8	5-32
10	2.75	3.	.75	1.24	1.5	2.
11	3.	3.25	.95	1.25	1.75	2.25
12	3.25	3.74	.98	1.48	1.98	2.48
13	3.5	4.	1.	1.5	2.	2.74
14	3.75	4.25	1.25	1.74	2.25	2.75
15	4.	4.5	1.26	1.75	2.48	3.
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	3-8 x 3-16	7-32	1-4	9-32	5-16	11-32
10	2.48	2.75	3.25	3.74	4.	4.5
11	2.74	3.24	3.5	4.	4.5	4.98
12	2.98	3.48	3.98	4.48	4.98	5.48
13	3.24	3.75	4.25	4.75	5.25	5.75
14	3.48	4.	4.5	5.	5.74	6.25
15	3.74	4.25	4.75	5.5	6.	6.75

No. Feet.	Size In. 7 16 x 1-16	Size In. 3-32	Size In. 1-8	Size In. 5-32	Size In. 3-16	Size In. 7-32
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	.98	1.48	1.98	2.48	2.98	3.25
11	1.	1.5	2.	2.5	3.24	3.74
12	1.24	1.74	2.25	2.75	3.48	4.
13	1.25	1.75	2.48	3.	3.75	4.25
14	1.26	2.	2.74	3.25	4.	4.74
15	1.48	2.24	2.75	3.5	4.25	5.
	7-16 x 1-4	9-32	5-16	11-32	3-8	13-32
10	3.75	4.24	4.75	5.25	5.74	6.24
11	4.24	4.74	5.25	5.75	6.25	6.75
12	4.5	5.	5.74	6.25	6.75	7.48
13	4.98	5.5	6.24	6.75	7.48	8.
14	5.25	6.	6.74	7.25	8.	8.74
15	5.75	6.48	7.	7.98	8.5	9.25
	1-2 x 1-16	3-32	1-8	5-32	3-16	7-32
10	1.	1.5	2.24	2.74	3.25	4.24
11	1.24	1.75	2.25	3.	3.5	4.5
12	1.25	1.98	2.5	3.25	3.75	5.
13	1.48	2.	2.75	3.5	4.24	5.25
14	1.5	2.25	3.	3.75	4.5	5.74
15	1.52	2.48	3.25	4.	4.75	6.
	1-2 x 1-4	9-32	5-16	11-32	3-8	13-32
10	4.25	4.75	5.48	6.	6.5	7.
11	4.75	5.25	6.	6.5	7.	7.75
12	5.24	5.75	6.5	7.	7.75	8.5
13	5.5	6.25	7.	7.75	8.5	9.
14	6.	6.75	7.5	8.25	9.	9.75
15	6.5	7.25	8.	9.	9.75	10.5

22 WEIGHT OF FLAT STEEL, 1-2 x 9-16 TO 5-8 x 5-16

No. Feet.	Size In.	Size In.	Size In.	Size In.	Size In.	Size In.
	1-2 x 7-16	15-32	9-16 x 1-16	3-32	1-8	5-32
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	7.5	8.	1.24	1.75	2.5	3.
11	8.25	9.	1.25	2.	2.75	3.25
12	9.	9.75	1.48	2.25	3.	3.75
13	9.75	10.5	1.5	2.48	3.25	4.
14	10.5	11.25	1.74	2.5	3.5	4.25
15	11.25	12.	1.75	2.75	3.75	4.5
	9-16 x 3-16	7-32	1-4	9-32	5-16	11-32
10	3.75	4.25	4.75	5.5	6.	6.75
11	4.	4.75	5.25	6.	6.75	7.25
12	4.5	5.25	5.75	6.5	7.25	8.
13	4.75	5.5	6.25	7.25	8.	8.75
14	5.	6.	6.75	7.75	8.5	9.5
15	5.5	6.5	7.25	8.25	9.25	10.
	9-16 x 3-8	7-16	1-2	5-8 x 1-16	3-32	1-8
10	7.25	8.5	9.74	1.25	2.	2.75
11	8.	9.25	10.74	1.48	2.25	3.
12	8.75	10.25	11.74	1.5	2.5	3.25
13	9.5	11.	12.5	1.75	2.74	3.5
14	10.25	12.	13.5	1.98	2.75	3.75
15	11.	12.75	14.5	2.	3.	4.
	5-8 x 5-32	3-16	7-32	1-4	9-32	5-16
10	3.25	4.	4.75	5.48	6.	6.75
11	3.74	4.5	5.25	6.	6.75	7.48
12	4.	5.	5.74	6.5	7.25	8.
13	4.25	5.25	6.24	7.	8.	8.75
14	4.75	5.74	6.74	7.5	8.5	9.5
15	5.	6.	7.	8.	9.24	10.

No. Feet.	Size In. 5-8 x 11-32	Size In. 3-8	Size In. 13-32	Size In. 7-16	Size In. 15-32	Size In. 1-2
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	7.5	8.	8.75	9.5	10.24	10.75
11	8.24	9.	9.75	10.48	11.25	12.
12	9.	9.75	10.5	11.25	12.25	13.
13	9.74	10.5	11.5	12.25	13.25	14.
14	10.49	11.25	12.25	13.24	14.25	15.
15	11.24	12.	13.25	14.24	15.25	16.25
	5-8 x 9-16	11-16 1-16	3-32	1-8	5-32	3-16
10	12.25	1.5	2.25	3.	3.75	4.5
11	13.48	1.74	2.48	3.25	4.	5.
12	14.74	1.75	2.75	3.5	4.5	5.48
13	16.	1.98	3.	3.75	4.75	5.75
14	17.	2.	3.24	4.24	5.25	6.25
15	18.25	2.25	3.48	4.48	5.5	6.75
	11-16 x 7-32	1-4	9-32	5-16	11-32	3-8
10	5.25	6.	6.75	7.5	8.25	9.
11	5.75	6.5	7.48	8.25	9.	10.
12	6.25	7.24	8.	9.	10.	10.75
13	6.75	7.75	8.75	9.75	10.75	11.74
14	7.25	8.25	9.48	10.5	11.5	12.5
15	7.75	9.	10.	11.25	12.25	13.5
	11-16 x 13-32	7-16	15-32	1-2	9-16	5-8
10	9.75	10.5	11.25	12.	13.5	15.
11	10.75	11.5	12.25	13.24	14.75	16.5
12	11.74	12.5	13.5	14.25	16.24	18.
13	12.74	13.5	14.5	15.5	17.5	19.5
14	13.5	14.5	15.75	16.75	18.75	21.
15	14.5	15.75	16.75	18.	20.25	22.5

24 WEIGHT OF FLAT STEEL, 3-4 x 1-16 TO 13-16 x 1-4

No. Feet.	Size In. 3-4 x 1-16	Size In. 3-32	Size In. 1-8	Size In. 5-32	Size In. 3-16	Size In. 7-32
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	1.5	2.48	3.75	4.	4.75	5.75
11	1.75	2.74	3.5	4.5	5.25	6.25
12	1.98	2.98	4.	4.98	5.75	6.75
13	2.	3.24	4.25	5.25	6.25	7.5
14	2.25	3.48	4.5	5.74	6.75	8.
15	2.48	3.74	4.75	6.	7.25	8.5
	3-4 x 1-4	9-32	5-16	11-32	3-8	13-32
10	6.5	7.25	8.	9.	0.74	10.5
11	7.	8.	9.	10.	10.75	11.5
12	7.75	8.75	9.75	10.75	11.75	12.5
13	8.5	9.5	10.5	11.74	12.5	12.75
14	9.	10.24	11.25	12.5	13.5	14.74
15	9.75	11.	12.	13.5	14.5	15.74
	3-4 x 7-16	15-32	1-2	9-16	5-8	13-16 x 1-16
10	11.25	12.	13.	14.25	16.24	1.75
11	12.5	13.25	14.25	16.	17.75	1.98
12	13.5	14.5	15.5	17.48	19.5	2.
13	14.75	15.75	16.75	19.	21.	2.25
14	15.74	16.75	18.	20.25	22.75	2.5
15	17.	18.	19.5	21.75	24.25	2.74
	13-16 x 3-32	1-8	5-32	3-16	7-32	1-4
10	2.74	3.5	4.48	5.25	6.24	7.
11	2.98	3.75	4.75	5.75	6.75	7.74
12	3.24	4.24	5.25	6.25	7.48	8.48
13	3.48	4.5	5.75	6.75	8.	9.
14	3.74	4.98	6.24	7.5	8.5	9.75
15	3.98	5.25	6.5	8.	9.25	10.5

WEIGHT OF FLAT STEEL, 13-16 x 9-32 TO 7-8 x 13-32 25

No. Feet.	Size In. 13-16 x 9-32	Size In. 5-16	Size In. 11-32	Size In. 3-8	Size In. 13-32	Size In. 7-16
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	8.	8.75	9.74	10.5	11.48	12.48
11	8.75	9.74	10.5	11.5	12.5	13.5
12	9.5	10.5	11.5	12.5	13.74	14.75
13	10.25	11.5	12.5	13.74	14.75	16.
14	11.	12.25	13.5	14.75	16.	17.25
15	11.75	13.25	14.5	15.75	17.	18.5
	13-16 x 15-32	1-2	9-16	5-8	11 16	3-4
10	13.25	14.	16.	17.5	19.5	21.
11	14.5	15.48	17.5	19.25	21.25	23.
12	15.75	16.75	19.	21.	23.25	25.
13	17.24	18.25	20.5	22.75	25.25	27.25
14	18.5	19.74	22.25	24.5	27.	29.25
15	20.	21.	23.75	26.25	29.	31.5
	7-8 x 1-16	3-32	1-8	5-32	3-16	7-32
10	1.98	2.98	3.75	4.75	5.74	6.5
11	2.	3.24	4.24	5.25	6.25	7.25
12	2.25	3.48	4.5	5.74	6.75	8.
13	2.48	3.75	4.98	6.24	7.48	8.5
14	2.74	4.	5.25	6.74	8.	9.24
15	2.75	4.25	5.74	7.	8.5	9.75
	7-8 x 1-4	9-32	5-16	11-32	3-8	13-32
10	7.5	8.5	9.75	10.5	11.25	12.48
11	8.25	9.	10.75	11.5	12.48	13.5
12	9.	10.24	11.74	12.5	13.5	14.75
13	9.75	11.	12.74	13.5	14.75	16.
14	10.5	12.	13.5	14.5	15.75	17.25
15	11.25	12.75	14.5	15.75	17.	18.5

26 WEIGHT OF FLAT STEEL, 7-8 x 7-16 TO 15-16 x 5-8

No. Feet.	Size In. 7-8 x 7-16	Size In. 15-32	Size In. 1-2	Size In. 9-16	Size In. 5-8	Size In. 11-16
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	13.25	14.24	15.	17.	19.	20.75
11	14.5	15.5	16.5	18.75	20.75	22.75
12	15.75	17.	18.	20.25	22.5	24.76
13	17.24	18.48	19.5	22.	24.5	27.
14	18.5	19.75	21.	23.75	26.25	29.
15	19.75	21.25	22.5	25.5	28.25	31.
	7-8 x 3-4	15-16 x 1-16	3-32	1-8	5-32	3-16
10	22.5	2.	3.	4.	5.	6.
11	24.75	2.25	3.25	4.5	5.5	6.74
12	27.	2.48	3.74	4.98	6.	7.25
13	29.25	2.5	4.	5.25	6.5	8.
14	31.5	2.75	4.25	5.74	7.	8.5
15	33.75	3.	4.5	6.	7.74	9.24
	15-16 x 7-32	1-4	9-32	5-16	11-32	3-8
10	7.	8.	9.	10.24	11.25	12.24
11	7.75	9.	10.	11.25	12.25	13.48
12	8.5	9.75	11.	12.25	13.48	14.74
13	9.25	10.5	11.75	13.25	14.5	15.75
14	10.	11.28	12.75	14.25	15.5	17.
15	10.75	12.25	13.74	15.25	16.75	18.28
	15-16 x 13-32	7-16	15-32	1-2	9-16	5-8
10	13.25	14.25	15.25	16.25	18.25	20.25
11	14.5	15.74	16.75	18.	20.	22.48
12	15.75	17.	18.25	19.5	22.	24.48
13	17.25	18.5	19.75	21.	23.75	26.48
14	18.5	20.	21.25	22.75	25.5	28.5
15	19.75	21.48	23.	24.48	27.48	30.5

No. Feet.	Size In. 15-16 x 11-16	Size In. 3-4	Size In. 1 in. x 1-16	Size In. 3-32	Size In. 1-8	Size In. 5-32
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	22.25	24.5	2.24	3.25	4.25	5.48
11	24.5	27.	2.25	3.5	4.75	6.
12	26.75	29.25	2.5	3.75	5.24	6.5
13	29.	31.75	2.75	4.24	5.5	7.
14	31.25	34.25	3.	4.5	6.	7.5
15	33.5	36.75	3.25	4.75	6.48	8.
	1 in. x 3-16	7-32	1-4	9-32	5 16	11-32
10	6.5	7.5	8.74	9.74	10.75	12.
11	7.	8.25	9.5	10.74	12.	13.24
12	7.75	9.	10.25	11.74	13.	14.25
13	8.48	9.75	11.25	12.5	14.	15.5
14	9.	10.5	12.	13.5	15.	16.75
15	9.75	11.25	13.	14.5	16.25	18.
	1 in. x 3 8	13-32	7-16	15-32	1-2	9-16
10	13.	14.	15.	16.25	17.24	19.48
11	14.25	15.48	16.5	18.	19.	21.25
12	15.5	16.75	18.	19.5	20.74	23.25
13	16.75	18.25	19.5	21.	22.25	25.24
14	18.	19.74	21.	22.75	24.	27.
15	19.5	21.	22.5	24.48	25.75	29.
	1 in. x 5-8	11-16	3-4	1-16	1-8	5-32
10	21.5	23.5	25.75	2.25	4.5	5.75
11	23.75	26.	28.25	2.5	5.	6.25
12	25.75	28.25	31.	2.75	5.5	7.
13	28.	30.5	33.5	3.	6.	7.5
14	30.	33.	36.	3.24	6.5	8.
15	32.25	35.48	38.75	3.48	7.	8.5

28 WEIGHT OF FLAT STEEL, 1 1-16 x 3-16 TO 1.1-8 x 5-16

No. Feet.	Size In. 1.1-16 x 3-16	Size In. 7-32	Size In. 1-4	Size In. 9-32	Size In. 5-16	Size In. 11-32
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	7.	8.	9.25	10.25	11.5	12.74
11	7.5	8.75	10.24	11.48	12.5	14.
12	8.25	9.74	11.	12.48	13.75	15.25
13	9.	10.5	12.	13.5	14.98	16.5
14	9.74	11.25	13.	14.5	16	17.75
15	10.24	12.24	14.	15.5	17.25	19.
	1.1-16 x					
	3-8	13-32	7-16	15-32	1-2	9-16
10	13.75	15.	16.	17.25	18.25	20.75
11	15.24	16.5	17.75	19.	20.	22.75
12	16.5	18.	19.48	20.75	22.	24.75
13	18.	19.5	21.	22.48	23.75	27.
14	19.25	21.	22.5	24.	25.5	29.
15	20.5	22.5	24.	26.	27.5	31.
	1.1-16 x			1.1-8 x		
	5-8	11-16	3-4	1-16	3-32	1-8
10	23.	25.25	27.5	2.48	3.74	4.75
11	25.25	28.	30.5	2.74	4.	5.25
12	27.5	30.48	33.25	3.	4.48	5.75
13	30.	33.	36.	3.24	4.75	6.25
14	32.25	35.5	38.75	3.48	5.	6.75
15	34.5	38.	41.5	3.74	5.5	7.25
	1.1-8 x					
	5-32	3-16	7-32	1-4	9-32	5 16
10	6.	7.25	8.5	9.74	11.	12.25
11	6.75	8.	9.25	10.74	12.	13.48
12	7.25	8.75	10.24	11.74	13.	14.74
13	8.	9.5	11.	12.5	14.25	16.
14	8.5	10.24	12.	13.5	15.25	17.
15	9.24	11.	12.75	14.5	16.5	18.25

WEIGHT OF FLAT STEEL, 1.1-8x11-32 TO 1.3-16x15-32. 29

No. Feet.	Size In. 1.1-8 x 11-32	Size In. 3-8	Size In. 13-32	Size In. 7-16	Size In. 15-32	Size In. 1-2
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	13.5	14.5	16.	17.	18.25	19.5
11	14.75	16.	17.5	18.75	20.	21.25
12	16.24	17.48	19.	20.25	22.	23.25
13	17.5	19.	20.5	22.	23.75	25.48
14	18.75	20.25	22.25	23.75	25.5	27.
15	20.25	21.75	23.75	25.5	27.48	29.
	1.1-8 x			1.3-16 x		
	9-16	5-8	11-16	3-4	1-16	3-32
10	21.75	24.25	26.5	29.	2.5	3.75
11	24.	26.75	29.25	32.	2.75	4.25
12	26.	29.	32.	34.75	3.	4.5
13	28.25	31.5	34.5	37.75	3.25	5.
14	30.5	34.	37.25	40.5	3.5	5.25
15	32.75	36.48	40.	43.5	3.75	5.75
	1.3-16 x					
	1-8	5-32	3-16	7-32	1-4	9-32
10	5.	6.48	7.74	9.	10.25	11.5
11	5.74	7.	8.5	9.98	11.25	12.75
12	6.24	7.75	9.25	10.75	12.25	14.
13	6.74	8.25	10.	11.75	13.25	15.
14	7.24	9.	10.75	12.74	14.25	16.25
15	7.74	9.74	11.5	13.5	15.25	17.48
	1.3-16 x					
	5-16	11-32	3-8	13-32	7-16	15-32
10	12.75	14.25	15.48	16.75	18.	19.25
11	14.	15.5	17.	18.48	19.75	21.25
12	15.25	17.	18.5	20.	21.5	23.
13	16.5	18.48	20.	21.75	23.48	25.
14	18.	19.75	21.5	23.5	25.5	27.
15	19.25	21.25	23.	25.	27.	29.

30 WEIGHT OF FLAT STEEL, 1.3-16 x 1-2 TO 1.1-4 x 3-4

No. Feet.	Size In. 1.3-16 x 1-2	Size In. 9-16	Size In. 5-8	Size In. 11-16	Size In. 3-4	Size In. 1.1-4 x 1-16
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	20.5	23.	25.5	28.	30.5	2.75
11	22.5	25.5	28.	31.	33.75	3.
12	24.5	27.75	30.5	33.75	36.75	3.25
13	26.5	30.	33.25	36.5	39.75	3.5
14	28.75	32.48	35.75	39.25	42.75	3.75
15	30.75	34.75	38.5	42.	46.	4.
	1.1-4 x					
	3-32	1-8	5-32	3-16	7-32	1-4
10	4.	5.48	6.75	8.	9.5	10.75
11	4.5	6.	7.48	9.	10.48	11.75
12	4.98	6.5	8.	9.75	11.25	13.
13	5.25	7.	8.75	10.5	12.25	14.
14	5.74	7.5	9.48	11.25	13.25	15.
15	6.	8.	10.	12.	14.24	16.25
	1.1-4 x					
	9-32	5-16	11-32	3-8	13-32	7-16
10	12.25	13.5	15.	16.24	17.5	19.
11	13.48	15.	16.5	17.75	19.25	20.75
12	14.74	16.25	18.	19.5	21.	22.5
13	16.	17.75	19.5	21.	22.75	24.5
14	17.	19.	21.	22.75	24.5	26.25
15	18.25	20.25	22.25	24.25	26.5	28.25
	1.1-4 x					
	15-32	1-2	9-16	5-8	11-16	3-4
10	20.25	21.5	24.25	27.	29.5	32.25
11	22.48	23.75	26.75	29.5	32.5	35.5
12	24.48	25.75	29.	32.25	35.5	38.75
13	26.48	28.	31.5	35.	38.5	42.
14	28.5	30.	34.	37.75	41.5	45.
15	30.5	32.25	36.48	40.5	44.48	48.5

WEIGHT OF FLAT STEEL, 1.5-16 x 1-16 TO 1.3-8 x 3-16 31

No. Feet.	Size In. 1.5-16 x 1-16	Size In. 3-32	Size In. 1-8	Size In. 5-32	Size In. 3-16	Size In. 7-32
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	2.75	4.25	5.74	7.24	8.5	10.
11	3.	4.74	6.24	8.	9.25	11.
12	3.48	5.	6.75	8.5	10.25	12.
13	3.74	5.5	7.25	9.25	11.	13.
14	4.	6.	8.	10.	12.	14.
15	4.25	6.48	8.48	10.75	12.25	15.
	1.5-16 x 1-4	9-32	5-16	11-32	3-8	13-32
10	11.25	12.75	14.25	15.74	17.	18.5
11	12.48	14.	15.74	17.25	18.75	20.25
12	13.5	15.24	17.	18.75	20.5	22.25
13	14.5	16.5	18.5	20.25	22.25	24.
14	15.74	18.	20.	21.75	24.	26.
15	17.	19.25	21.25	23.5	25.74	27.75
	1.5-16 x 7-16	15-32	1-2	9-16	5-8	11-16
10	20.	21.48	22.5	25.5	28.25	31.
11	21.75	23.5	24.75	28.	31.	34.
12	23.75	26.5	27.	30.5	34.	37.25
13	25.75	27.75	29.75	33.25	36.75	40.25
14	27.75	30.	31.5	35.75	39.5	43.48
15	29.75	32.	34.	38.5	42.5	46.5
	1.5-16 x 3-4	1.3-8 x 1-16	3-32	1-8	5-32	3-16
10	34.	3.	4.5	6.	7.5	9.
11	37.48	3.25	4.98	6.5	8.25	10.
12	40.75	3.5	5.48	7.24	9.	10.75
13	44.25	3.75	5.75	7.75	9.75	11.74
14	47.5	4.24	6.25	8.25	10.5	12.5
15	51.	4.48	6.75	9.	11.25	13.5

33 WEIGHT OF FLAT STEEL, 1.3-8 x 7-32 TO 1.7-16x11-32

No.	Size In. 1.3-8 x 7-32	Size In. 1-4	Size In. 9-32	Size In. 5-16	Size In. 11-32	Size In. 3-8
Feet.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	10.5	12.	13.5	15.	16.5	17.75
11	11.5	13.24	14.75	16.5	18.	19.5
12	12.5	14.25	16.24	18.	19.75	21.25
13	13.5	15.5	17.5	19.5	21.25	23.
14	14.5	16.75	18.75	21.	23.	24.98
15	15.75	18.	20.25	22.5	24.5	26.75
	1.3-8 x 13-32	7-16	15-32	1-2	9-16	5-8
10	19.5	20.75	22.25	23.5	26.5	29.5
11	21.25	22.75	24.5	26.	29.25	32.5
12	23.25	24.75	26.75	28.25	32.	35.5
13	25.25	27.	29.	30.5	34.5	38.5
14	27.	29.	31.25	33.	37.25	41.48
15	29.	31.	33.5	35.48	40.	44.25
	1.3-8 x 11-16	3-4	1.7-16 x 1-16	3-32	1-8	5-32
10	32.5	35.5	3.	4.74	6.25	7.75
11	35.75	39.	3.48	5.24	7.	8.5
12	39.	42.5	3.75	5.5	7.5	9.25
13	42.25	46.25	4.	6.	8.24	10.24
14	45.5	49.75	4.25	6.5	8.75	10.98
15	48.75	53.25	4.75	7.	9.48	11.75
	1.7-16 x 3-16	7-32	1-4	9-32	5 16	11-32
10	9.48	10.98	12.5	14.	15.5	17.
11	10.25	12.	13.75	15.48	17.24	19.
12	11.25	13.	15.	16.75	18.75	20.5
13	12.25	14.	16.25	18.25	20.25	22.25
14	13.24	15.25	17.5	19.5	21.75	24.
15	14.	16.25	18.75	21.	23.48	25.75

33 WEIGHT OF FLAT STEEL, 1.7-16 x 3-8 TO 1.1-2 x 1-2

No.	Size In. 1.7-16 x 3 8	Size In. 13-32	Size In. 7-16	Size In. 15-32	Size In. 1-2	Size In. 9-16
Feet.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	18.74	20.25	21.75	23.5	25.	28.
11	20.5	22.25	24.	25.75	27.5	30.75
12	22.5	24.25	26.24	28.	30.	33.5
13	24.25	26.48	28.48	30.48	32.5	36.48
14	26.25	28.48	30.5	32.75	35.	39.25
15	28.	30.48	32.75	35.	37.5	42.
	1.7-16 x 5-8	11-16	3-4	1-16	3-32	1-8
10	31.	34.25	37.5	3.25	4.75	6.5
11	34.25	37.75	41.25	3.5	5.25	7.
12	37.5	41.25	45.	4.	5.75	7.75
13	40.5	44.5	48.75	4.25	6.25	8.48
14	43.5	48.	52.5	4.5	6.75	9.
15	43.75	51.5	56.25	4.75	7.25	9.75
	1.1-2 x 5-32	3-16	7-32	1-4	9-32	5-16
10	8.	9.74	11.25	13.	14.5	16.24
11	9.	10.74	12.48	14.25	16.	17.75
12	9.75	11.74	13.5	15.5	17.48	19.5
13	10.5	12.5	14.75	16.75	19.	21.
14	11.25	13.5	15.75	18.	20.25	22.75
15	12.	14.5	17.	19.5	21.75	24.5
	1.1-2 x 11-32	3-8	13-32	7-16	15-32	1-2
10	17.75	19.5	21.	22.5	24.25	25.75
11	19.5	21.25	23.	24.75	26.75	28.25
12	21.25	23.25	25.	27.	29.	31.
13	23.	25.25	27.25	29.5	31.5	32.5
14	24.75	27.	29.25	31.75	34.	36.
15	26.5	29.	31.5	34.	36.48	38.75

34 WEIGHT OF FLAT STEEL, 1.1-2 x 9-16 TO 1.5-8 x 1-16

No. Feet.	Size In. 1.1-2 x 9-16	Size In. 5-8	Size In. 11-16	Size In. 3-4	Size In. 1.9-16 x 1-16	Size In. 3-32
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	29.	32.25	35.5	38.75	3.48	5.
11	32.	35.5	39.	42.5	3.75	5.5
12	34.75	38.75	42.5	46.5	4.	6.
13	37.75	42.	46.	50.25	4.48	6.5
14	40.5	45.	49.75	54.	4.75	7.
15	43.5	48.5	53.25	58.	5.	7.5
	1.9-16 x					
	1-8	5-32	3-16	7-32	1-4	9-32
10	6.75	8.48	10.	11.75	13.5	15.25
11	7.48	9.25	11.24	13.	14.75	16.75
12	8.	10.	12.24	14.25	16.25	18.25
13	8.75	10.98	13.24	15.48	17.5	19.75
14	9.5	11.75	14.24	16.5	19.	21.25
15	10.24	12.5	15.25	17.75	20.25	23.
	1.9-16 x					
	5-16	11-32	3 8	13-32	7-16	15-32
10	16.75	18.5	20.25	22.	23.5	25.25
11	18.5	20.25	22.25	24.	26.	27.75
12	20.25	22.25	24.25	26.25	28.25	30.25
13	22.	24.	26.25	28.5	30.5	33.
14	23.5	26.	28.5	30.75	33.	35.5
15	25.25	27.75	30.48	33.	35.5	38.
	1.9-16 x					
	1-2	9 16	5-8	11-16	3-4	1.5-8 x 1-16
10	27.	30.25	33.75	37.	40.5	3.5
11	29.5	33.25	37.	40.75	44.5	4.
12	32.5	36.5	40.5	44.5	48.5	4.25
13	35.	39.5	43.75	48.25	52.5	4.75
14	37.75	42.5	47.25	52.	56.75	5.
15	40.5	45.5	50.5	53.75	60.75	5.48

No.	Size In. 1.5-8 x 3-32	Size In. 1-8	Size In. 5-32	Size In. 3-16	Size In. 7-32	Size In. 1-4
Feet.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	5.25	7.	8.75	9.98	12.25	14.
11	5.75	7.75	9.74	10.98	13.5	15.25
12	6.25	8.5	10.5	11.74	14.74	16.75
13	6.75	9.24	11.48	12.74	16.	18.24
14	7.5	9.75	12.25	13.75	17.24	19.5
15	8.	10.5	13.74	14.75	18.25	21.
	1.5-8 x 9-32	5-16	11-32	3 8	13-32	7-16
10	15.75	17.5	19.25	21.	22.75	24.5
11	17.25	19.25	21.	23.	25.	27.
12	19.	21.	23.	25.	27.25	29.5
13	20.5	22.75	25.	27.25	29.5	32.
14	22.	24.5	27.	29.24	32.	34.25
15	23.75	26.5	29.	31.5	34.	36.75
	1.5-8 x 15-32	1-2	9-16	5-8	11-16	3-4
10	26.25	28.	31.5	35.	38.5	42.
11	29.	31.75	34.25	38.5	42.25	46.25
12	31.5	33.5	37.75	42.	46.	50.25
13	34.	36.48	40.75	45.5	50.	54.5
14	36.75	39.25	44.25	49.	54.	58.75
15	39.5	42.	47.25	52.5	57.75	63.
	1.3-4 x 1-16	3-32	1-8	5-32	3 16	7-32
10	3.75	5.75	7.5	9.5	11.25	13.25
11	4.24	6.25	8.25	10.5	12.48	14.5
12	4.5	6.75	9.	11.25	13.5	16.
13	5.	7.48	9.75	12.25	14.75	17.25
14	5.25	8.	10.74	13.25	15.75	18.5
15	5.75	8.5	11.5	14.25	17.	19.75

36 WEIGHT OF FLAT STEEL, 1.3-4 x 1-4 TO 1.7-8 x 3-8

No. Feet.	Size In. 1.3-4 x 1-4	Size In. 9-32	Size In. 5-16	Size In. 11-32	Size In. 3-8	Size In. 13-32
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	15.	17.	19.	20.75	22.5	24.5
11	16.5	18.75	20.75	23.	24.98	27.
12	18.24	20.48	22.74	25.	27.25	29.5
13	19.74	22.	24.5	27.	29.5	32.
14	21.25	23.75	26.5	29.	31.75	34.25
15	22.75	25.5	28.25	31.25	34.	36.75
	1.3-4 x					
	7-16	15-32	1-2	9-16	5-8	11-16
10	26.5	28.25	30.25	34.	38.	41.5
11	29.	31.	33.25	37.25	41.75	45.5
12	31.75	34.	36.25	40.75	45.5	49.75
13	34.48	36.75	39.25	44.	49.25	54.
14	37.	39.5	42.48	47.5	53.	58.
15	39.5	42.5	45.5	51.	57.	62.25
	1.3-4 x	1.7-8 x				
	3-4	1-16	3-32	1-8	5-32	3-16
10	45.25	4.	6.	8.	10.	12.
11	49.75	4.5	6.75	9.	11.24	13.48
12	54.25	4.98	7.25	9.75	12.24	14.5
13	59.	5.25	8.	10.5	13.24	15.75
14	63.25	5.75	8.5	11.48	14.24	17.
15	67.75	6.24	9.24	12.25	15.25	18.25
	1.7-8 x					
	7-32	1-4	9-32	5 16	11-32	3 8
10	14.24	16.25	18.24	20.25	22.25	24.25
11	15.5	17.75	20.	22.25	24.5	26.75
12	17.	19.5	21.75	24.25	26.75	29.
13	18.24	21.	23.5	26.25	29.	31.5
14	19.75	22.5	25.5	28.25	31.25	34.
15	21.25	24.25	27.25	30.48	33.5	36.5

No. Feet.	Size In. 1.7-8 x 13-32	Size In. 7-16	Size In. 15-32	Size In. 1-2	Size In. 9-16	Size In. 5-8
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
10	26.25	28.25	30.5	32.25	36.25	40.5
11	29.	31.	33.25	35.5	40.	44.5
12	31.5	34.	36.25	38.75	43.5	48.5
13	34.	36.75	39.48	42.	47.25	52.5
14	36.75	39.5	42.5	45.	50.75	56.5
15	39.5	42.5	45.5	48.5	54.5	61.75
	1.7-8 x 11-16	2. x 3-4	2. x 1-16	3-32	1-8	5-32
10	44.5	48.5	4.25	6.5	8.74	10.75
11	49.	53.25	4.75	7.24	9.5	11.75
12	53.5	58.	5.25	7.75	10.48	13.
13	58.	63.	5.74	8.5	11.25	14.
14	62.5	67.75	6.	9.	12.24	15.
15	66.75	73.5	6.5	9.75	13.	16.25
	2. x 3-16	7-32	1-4	9-32	5-16	11-32
10	13.	15.	17.25	19.5	21.5	24.
11	14.25	16.5	19.	21.48	24.	26.25
12	15.5	18.	20.75	23.25	26.	28.5
13	16.75	19.5	22.48	25.25	28.25	31.
14	18.	21.	24.	27.25	30.48	33.5
15	19.5	22.5	26.	29.25	32.5	35.75
	2. x 3-8	13-32	7-16	15-32	1-2	9-16
10	26.	28.	30.25	32.5	34.5	38.75
11	28.5	31.	33.25	35.75	38.	42.5
12	31.25	33.75	36.25	39.	41.5	46.5
13	33.75	36.5	39.25	42.25	45.	50.25
14	36.48	39.25	42.48	45.5	48.5	54.25
15	39.	42.25	45.5	48.75	52.	58.

Size. in In.	10 Feet.	11 Feet.	12 Feet.	13 Feet.	14 Feet.	15 Feet.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
2 x 5-8	43.25	47.5	52.	56.25	60.5	65.
11-16	47.5	52.25	57.	61.75	66.5	71.25
3-4	51.75	57.	62.	67.	72.	77.5

FINISHED WEIGHT OF CARRIAGE SPRING STEEL,
IN BARS OF FIFTEEN FEET.

Size	Weight.	Size	Weight.	Size	Weight.
	lbs. ozs.		lbs. ozs.		lbs. ozs.
1 $\frac{1}{4}$ x 2	16 14	1 $\frac{3}{4}$ x 2	26 4	2 $\frac{1}{2}$ x 2	35 10
1 $\frac{1}{4}$ x 3	15 15	1 $\frac{3}{4}$ x 3	22 8	2 $\frac{3}{4}$ x 2	37 8
1 $\frac{1}{4}$ x 4	13 4	1 $\frac{3}{4}$ x 4	18 8	2 $\frac{3}{4}$ x 3	33 12
1 $\frac{3}{8}$ x 3	16 14	2 x 2	30 5	3 x 2	39 6
1 $\frac{1}{2}$ x 2	20 10	2 x 3	25 5	3 x 3	37 8
1 $\frac{1}{2}$ x 3	18 4 $\frac{1}{2}$	2 x 4	24 6		
1 $\frac{1}{2}$ x 4	17 5 $\frac{1}{2}$	2 $\frac{1}{4}$ x 2	31 6 $\frac{1}{2}$		

WEIGHT AND SIZE OF SQUARE CROWBARS.

Size In.	Weight.
	lbs.
7-8	8.
15.16	10.
1	12.
1.1.16	14.
1.1-8	16.
1.3-16	18.
1.1-4	20.
1.5-16	22.

The meaning of small letters before or after the different sizes on pages 6 7 8 and 9 are as follows:

f full. b bare. t tight. e easy. g gague.
r e round edges.

Table of decimal parts of a pound, found in pages, 11 to 38.

lbs.	EQUAL WEIGHT IN FRACTIONS OF A POUND.
.23	scant weight $\frac{1}{4}$ of a pound.
.24	just scant weight $\frac{1}{4}$ of a pound.
.25	$\frac{1}{4}$ of a pound.
.26	just full weight $\frac{1}{4}$ of a pound.
.28	full weight $\frac{1}{4}$ of a pound.
.48	scant weight $\frac{1}{2}$ of a pound.
.5	$\frac{1}{2}$ of a pound.
.52	full weight $\frac{1}{2}$ pound.
.73	scant weight $\frac{3}{4}$ of a pound.
.74	just scant weight $\frac{3}{4}$ of a pound.
.75	$\frac{3}{4}$ of a pound.
.76	full weight $\frac{3}{4}$ of a pound.
.95	scant weight 1 pound.
.98	just scant weight 1 pound.

In referring to the above table the reader will readily understand that for most purposes the following explanation will be all that is needed in ascertaining the weight of any size bar.

4.48lbs means that the number of pounds is 4lbs and scant $\frac{1}{2}$ of a pound.

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